

## ABSTRACT OF THE DISCLOSURE

A method is disclosed for operating a multi-mode mobile station, wherein each mode shares at least one common band of frequencies. The method includes transmitting a signal from a first antenna circuit of the mobile station in the common band of frequencies and, while transmitting, electronically detuning a second antenna circuit of the mobile station such that the second antenna circuit is not resonant in the common band of frequencies. As an example, the common band of frequencies includes 1900MHz. The step of detuning includes varying an impedance of at least one component that forms a part of the second antenna circuit, where the at least one component can be a stripline or a PIN diode or a FET diode used as switch for making an impedance change. The at least one component can also be a normally active component that is put into a passive state. A multi-mode mobile station in accordance with these teachings has, for each mode, a transmitter chain that includes an antenna circuit that operates in the common band of frequencies and a controller, that is responsive to a first one of the transmitter circuits transmitting, for electronically detuning a second antenna circuit of the mobile station such that said second antenna circuit is resonant at a frequency that lies outside of, or that is shifted away from, the common band of frequencies.

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